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ABSTRACT

This paper presents a review of the literature regarding use of computers in elementary social studies and a rationale of how computer usage aligns with the constructivist approach to education. Computer use in elementary social studies can be divided into three broad categories: (1) instructional software; (2) productive software; and (3) computer-based reference tools. The paper examines each of these categories with specific examples of use in the elementary classroom. Problems pertaining to computer use in social studies instruction are presented, including proper training of teachers, traditional lecture methodology, lack of proper technology support in the schools, competition with other subjects to use computers, the misuse or improper use of technology, and the overall cost of technology with the associated inequity of resources available to schools. Suggestions for effective computer use in the classroom are offered. (Contains 25 references.) (EH)

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COMPUTER USE IN ELEMENTARY SOCIAL STUDIES

BY

WENDY D. FREIWALD

SPRING 1997

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Every educator is faced with the daily challenge of finding new instructional approaches which will captivate their students' attention and stimulate learning. Social studies instructors face an additional challenge of overcoming students' preconceived notions of what social studies entails and how its issues have personal and universal relevance. Research reports that "[f]or decades social studies has been rated as one of the least liked subjects in the curriculum". "It is the subject students love to hate" (qtd. in Hope 149). This may be due to the fact that most "social studies [curricula] remains subject-centered" with "instruction which consists primarily of lecture, recitation, and textbook learning" (Hope 150). This type of instructional strategy is contrary to what many educators now contend is a more sensible and effective approach - the constructivist approach.

"According to the constructivist theory, knowledge develops holistically, rather than through memorization of discrete facts..." (qtd. in Boyer and Semrau 14). Students will learn by making connections between new knowledge and "one's own authentic personal experience" (Boyer and Semrau 14). Furthermore, "recent studies on learning have promoted an interdisciplinary constructivist approach where students develop their knowledge through team collaboration, discuss different interpretations of a problem, and negotiate and synthesize ideas drawing from various disciplines" (qtd. in Boyer and Semrau 14). In other words, educators can foster holistic learning by developing lessons which integrate a variety of subjects. In addition, it is also believed that "[a] constructivist approach that empowers students to ask their own questions and seek their own answers fits well into the social studies curriculum" (qtd. in Hope 150).

Throughout the literature pertaining to the use of computers in elementary social studies, educators strongly advocate the integration of technology into the social studies curriculum. Not only do many of the software programs used in the social studies provide the multidisciplinary connections supported by the constructivist theory, but, in many ways the use of computers in the classroom also affords a wealth of new and unique opportunities for teaching and learning. In addition, it provides students a way of easily accessing and managing current and unbounded information like never before.

Before detailing specific uses of technology in social studies education, it is important to first describe the skills which are to be developed and refined through the social studies curriculum. According to "[a] 1989 report from the National Council for the Social Studies (NCSS), the skills that are primary to social studies are those related to maps and globes" but also include skills that are linked with other content areas (Klenow 65). These skills include research, thinking, decision-making, and reading skills (Klenow 65). In addition, the NCSS established Curriculum Standards in 1995 which included 10 themes dealing with issues pertaining to culture, economics, environment, individual and historical identity, the importance and functions of institutions and power structures, the role of science and technology in society, global connections, and civic ideals and practices (Field and Hoge). In other words, the overall theme of these standards is to develop and increase students' awareness of their roles in society and focus on how different elements of the social studies have historical, future, global, and practical significance to daily life.

As recent literature indicates, "[t]echnology can be a powerful partner supporting and reinforcing skills into the social studies" (Klenow 65). "[B]y integrating computer technology and effective teaching skills, teachers can help students develop the skills that constitute some of the major goals of the social studies curriculum" (qtd. in Yeager and Morris 279).

Based on a review of the current literature, computer use in elementary social studies can be divided into three broad categories: **instructional software**, **productive software**, and **computer-based reference tools**. Instructional software includes **tutorials**, **drill-and-practice**, games, **simulations**, and **exploratory environments**. Most instructional software is a combination of two or more of these types. In fact, with the **multimedia** capabilities of today's systems, some of the most popular educational software used in the social studies are of the simulation and exploratory environment variety. These programs provide student-centered, interactive activities and utilize a variety of audio and visual effects to present social studies content in a stimulating and interesting manner.

One such program, mentioned within recent literature, is "[t]he *Carmen Sandiego* series of software [which] represents the skillful superimposition of a game structured onto an otherwise ordinary drill-and-practice program in geography" (Brady 312). Using this program, "[s]tudents role-play, debate, solve realistic dilemmas, and explore the complexities involved in decision-making as they learn about a specific place or time" (Klenow 66). *Carmen Sandiego* "motivates students to learn and introduces them to a variety of cultures, people, places, and events that have been foreign or unknown to them before" (Carroll, Knight, and Hutchinson 165).

This program, in particular, is ideally suited for reinforcing the holistic nature of the constructivist theory for several reasons. For instance, *Carmen Sandiego* is applicable to a variety of subjects other than geography such as history, "mathematics, language arts, science, music, and fine art" (Carroll, Knight, and Hutchinson 165). Additionally, not only can it be used to teach the map and globe skills specific to social studies but, it can also refine a wide range of other skills including thinking, comprehension, writing, vocabulary, and research skills (Carroll, Knight, and Hutchinson 168). Furthermore, it can also help to foster group learning processes like collaboration, problem-solving, and decision-making as this program can be used by a few students at one computer or by an entire class using an computer projection unit (Carroll, Knight, and Hutchinson 165).

Other similar instructional software such as *Lewis and Clark Stayed Home* and *Oregon Trail* can also be used to make these "cross-curricular connections" (Braun and Kuseske 26). What is so powerful and effective about using instructional software and other technology in the social studies is that by "tapping into the same mania that children seem to have for playing Nintendo and Pacman teachers today can implement the same technology to interest their students ..." (qtd. in Yeager and Morris 278) and at the same time "enhance authentic experiences ..." (Boyer and Semrau 14).

The second category of computer use in social studies, productive software, includes **databases**, **spreadsheets**, word processors, and graphic presentation. Each of these applications allow data and information to be compiled and organized for the purpose of analysis, comparison, discussion, reporting, and presentation. Certain programs incorporate a combination of these applications and are referred to as

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hypersystems. Popular hypersystems used in education include *HyperCard, SuperCard, Guide, LinkWay, ToolBook*, and *HyperTIES*. This type of system "allows for the storage and easy retrieval of data and visual images" (Braun 27) and make the organization of large amounts of information manageable. In addition, students' research can be combined and presented "in the form of text, video, and digitized audio" (Brady 313). This unique medium lets students play a cast of different roles such as researchers, reporters, publishers, producers, designers, and graphic artists. These "high tech" opportunities motivate students while at the same time develop essential computer skills.

The last category, computer-based reference tools, refers to software and telecommunications networks which allow access to reference displays, such as "electronic encyclopedias, dictionaries, and [a variety of] databases" (Klenow 66), and graphics displays (Nellis 37). "Computer-based reference tools ... [b]uild research, thinking, and reading skills ... [and] let students find, organize, interpret, and compare data with impressive speed and ease" (Klenow 66).

Some reference tools such as *Picture Atlas of the World*, require the purchase of software that provides access to specific data and graphics. With the addition of a modem and a subscription to a telecommunications network, "[s]tudents and teachers can gain immediate access to vast amounts of information from organizations around the world as soon as it is made available" (Boldt, Gustafson, and Johnson 105). Certain networks are specific to a particular group, for instance, National Geographic's Kids Network, Kids '97/KIDLINK, and World Classroom are all telecommunications networks designed for the exchange of information among school-aged students and

classrooms. Another much larger network, the **Internet**, provides international communications capabilities and an infinite amount of information.

While the Internet bug seems to be biting people in their homes and businesses all over the world, it is surprising how little schools are using this capability. 1996 data revealed that "only 22 percent of schools [in the U.S.] have a single modem" and only as few as "2 to 3 percent of teachers are active users [of the Internet] " (Grabe and Grabe 186). "As is often the case, lack of money and of teacher training" (Grabe and Grabe 187) are significant reasons that schools are not taking advantage of this "cutting-edge" technology.

There are essentially three different ways to use the Internet. The first way is to find information either through accessing a particular database, through file transfer from another computer, or from other Internet resources like **Web sites**. The second use of the Internet is through electronic bulletin boards, also known as conferences, news groups, discussion groups, or forums. Electronic bulletin boards "provide opportunities for ongoing discussions on [specific] topics..." (Boldt, Gustafson, and Johnson 106). They "can hold hundreds of messages and can be read by people from all over the world" (Grabe and Grabe 189). There are thousands of discussion groups available over the Internet including those specific to social studies that can be of interest to both teachers and students.

The third use, electronic mail or E-Mail, "is undoubtedly the most widely used application on the Internet" (Boldt, Gustafson, and Johnson 106). With E-Mail, messages can be sent to anyone else who has a computer with telecommunications capabilities and an **E-Mail account**. Throughout the literature, E-Mail is greatly

praised and attributed with many advantages. For instance, "E-Mail is less intrusive and more convenient than telephoning, and faster and less formal than writing letters" ("Social Studies On-line" 24). In addition, the speed of E-Mail makes international correspondence with other students or classes practical and effective because, with E-Mail, "immediacy and enthusiasm that could not be maintained by using regular mail can now be provided" (Barr 282). "[S]tudents are particularly fascinated with the human interactions made possible by electronic communication" (Boldt, Gustafson, and Johnson 105). Teachers can use this capability to "remove social studies from the realm of the textbook and make it exciting, interesting, and relevant" (Barr 281).

In a resourceful article filled with lesson ideas, author Jeri Wilson illustrates several ways in which E-Mail is used in the classroom. For instance, she describes, "Fifth graders participated in the Artifact Box Exchange project. Clues such as food, manufactured goods, a piece of highway map, typical clothing, and population were exchanged. Once students had guessed the location of their partners, ongoing communication was established" ("Potential for" 28).

E-Mail is also being used by educators to encourage student collaboration and "to expand the classroom beyond its four walls" (Boldt, Gustafson, and Johnson 112). Teachers can subscribe to a mailing list such as "Intercultural E-Mail Classroom Connections (IECC) [which] is a mailing list for teachers seeking partner classrooms for international and cross-cultural electronic mail exchanges" ("Potential for" 28). This service "provides opportunities to help students develop knowledge about other cultures and appreciate the similarities and differences among various cultures" (Braun 29).

In an article entitled "Social Studies by Electronic Mail", author Hugh Barr includes an example of this type of exchange. In it he describes that in "... preparing material for their local agricultural show" (282), students in rural Warwickshire, England contacted students at another rural elementary school in New Zealand and requested "information on New Zealand farming" (282). The New Zealand "students obliged and interviewed local farmers, described regional farming methods ...," and compiled other relevant data which was then "... transmitted by electronic mail to Warwickshire". "The exercise was a marked success" (282). This success was attributed to the fact that the request came from students of the same age in similar rural settings and that the New Zealand students "felt there was a genuine audience for their efforts" (qtd. in Barr 282). Mr. Barr also makes a point of stressing that the success was also due to "clear structure in terms of ideas and content" (282). "The English students knew what information they wanted ..." (282) and made their requests specific.

Authors and educators throughout the literature support and encourage the use of telecommunications networks like the Internet in social studies instruction. One author states that "telecommunications ... can contribute directly to transforming social studies teaching ... [and] is a great resource for making students aware that they are intertwined in the global community" (qtd. in Hope 150). In another article, the authors conclude that "the Internet has proved to be a powerful tool for teaching and learning" (Boldt, Gustafson, and Johnson 112). Additionally, "[t]he currency and volume of reference materials accessible over the Internet allow instructors to bring into the classroom resources that are not available in a textbook or from the school media

center" (Boldt, Gustafson, and Johnson 108); resources containing "knowledge that will be outdated and obsolete by the time it is published in books" (Wilson and Marsh 199).

Whether the computer is used with instructional software, productive software, or with computer-based reference tools, it is evident that its applications "can play a supportive role in the achievement of elementary social studies learning objectives" (Braun and Kraft 8). These technologies "can make the content of social studies relevant and connect with the needs, objectives, and goals of the students" (qtd. in Hope 151). Not only do "[s]tudies suggest that the use of technology can enhance student learning" (Nellis 36), but educators also feel that "the knowledge gained [from using computer technology] will help [students] in their future coursework and professional careers" (Boldt, Gustafson, and Johnson 112).

Some authors have also made note of several problems which exist pertaining to computer use in social studies instruction. The most prominent problem is the lack of use among social studies educators. A 1996 article reports that "researchers have found that there is no widespread use of technology in the social studies" (qtd. in Hope 151). In the same article, the author attributes this to many social studies instructors being "... yoked to the textbook, captive to talk and chalk, [or] unable or unwilling to connect objectives with real world..." (Hope 150).

Others insist that teachers' reluctance to integrate technology is due to the lack of proper training. Although some programs can be easily mastered, many require significant time to become familiar enough with to use it effectively in the classroom (Braun 28). Certain software is just not user-friendly and "seems to require a greater

level of computer literacy than many ... teachers are likely to possess" (Yeager and Morris 280).

Another problem is that some of the new, sophisticated software requires a lot of computer memory (Braun 28). This could make the slower machines, which exist in many (if not most) schools, "take a long time to process and organize information" (Braun 28). This could lead to students losing interest and to "classroom management problems" (Braun 28).

Many social studies educators also face the dilemma of competing with other subjects for use of the school computers. In fact, 1994 President-elect of NCSS, Bob Stahl professes, "I do not see the majority of social studies teachers moving forward increasing the use of technology and **delivery systems** on a day-to-day basis in their classrooms ... [because of] the focus in many schools on giving priority use of such equipment to other areas, such as math and science ..." (McKinney-Browning 32).

Another major problem facing all areas of instruction in school systems nationwide is the cost of technology. "The costs of these ever-changing technological developments ... continue to outpace the budgets of most school districts..." (Mitchell-Powell 11). This leads to a related problem - the inequity of resources. "[S]chools that can afford the technology have expanded potential for graduating technologically competent, sophisticated students who can easily traverse the globe-spanning technological superhighways of the 21st century. Schools who can't will graduate students incapable of maneuvering even the access ramps" (McKinney-Browning 32).

Finally, a significant factor which renders computer integration ineffective is the misuse or improper use of technology. Some educators attempt to use the technology

without a "clear structure and purpose" (Barr 282) in mind. "[O]ften the focus is ... on the process rather than the content" (qtd. in Barr 282). One concerned author posed this question, "How do you determine if the proposed activity is a real one providing opportunities for relevant student learning, or a contrived activity providing, at most, only exposure to the technology?" (Ross 28).

These problems associated with technology integration can all be overcome. The literature offers suggestions to ensure the successful and effective use of computers in the social studies. First, educators must carefully match "appropriate software to curriculum goals..." (Brady and Barth 15). Technology should be used to aid instruction and to meet objectives; not just for the sake of using the technology.

One particular article describes an endeavor that has matched technology to objectives. This article describes that "[a] collaborative effort ... between Florida Department of Education (FDOE) and the Decision Development Corporation (DDC)" in 1993, resulted in the design of a K-8 program called *Social Science 2000 Connections, Challenges, Choices* (Wade et al. 17). This program "is a vast software database of lesson plans, student investigations and simulations, **videodisc imagery**, motion video, audiotapes, maps, Cobblestone Magazines, literature (fiction and nonfiction), ... and other resources" (Wade et al. 17). "This program seeks to facilitate the development of student responsibility of learning, utilize significant concepts and ideas which connect with learner's experience, provide for interactive learning, and create and apply knowledge in order to better understand and change oneself and the world" (Wade et al. 18). The overall purpose of this "technology-based social studies curriculum" (Wade et al. 17) is to make "*connections* between the past and the present,

help students meet the *challenges* of the future, and prepare them to experience the joy and satisfaction of making *choices* that positively affect themselves and their world" (Wade et al. 18).

A second suggestion for effective computer use applies to lesson structure and planning. "[C]lassroom learning activities that are most effective are those that use direct and purposeful experience" (qtd. in Barr 281). In addition, "[p]rojects need purpose, structure, and a clear time frame within which to work" (Barr 282). Purpose and structure will help teachers to make certain that specific objectives are being met by using the technology and that students have a clear focus throughout the activity. A specific time frame not only helps to dissuade procrastination but also may help to hasten responses from information requests using E-Mail.

In addition, successful computer projects and activities also need to include a conclusion or summary activity. John Chiodo and Mary Flaim discuss the significance of this phase of instruction in an article in which they term this activity "debriefing" (119). In this very informative work, these authors recommend that after the completion of a project or computer simulation, the instructor and students discuss the processes and results of the activity to determine what was learned by the exercise and how this knowledge can be applied to other things (121). "These accommodations of new information form the essence of meaning. Students learn to tie things together to connect part to part to whole" (qtd. in Chiodo and Flaim 119). "[D]ebriefing is the key to the entire learning process during which students' attitudes are applied, tested, analyzed, and synthesized" (119). This "process provides feedback to the teacher on

the students' value and understanding of the simulation" (121) [or activity] and helps to determine whether or not "new learning is processed in the correct manner" (119).

Finally, educators and policymakers need to acknowledge and address the significant role that technology now plays in many aspects of life and what a crucial skill it has become. We all need to make technology integration in every school a priority. All students must become technologically literate and sufficiently prepared to become effective citizens. In an excellent and insightful article, author Dennis Gooler urges, "Educators of young children who wish to engage those children in the social studies must necessarily come to terms with the emerging roles of technologies in the development of society, and in the activities of contemporary teaching and learning". "[T]echnologies are both content and tools in the social studies curriculum ... [and] are being said to be changing the very nature of work, through changes in the ways people teach and learn" (27).

In another article, the authors proclaim, "The use of technology in the classroom is imperative because graduates will enter a work force that is already inextricably tied into information technologies" (Wilson and Marsh 199). It is for these reasons in particular that educators and administrators must strive to meet new challenges resulting from the "information age" we find ourselves emerged within. Furthermore, "technology standards should address the quality of teacher training available in combination with the degree and quality of teacher access to software and hardware essential for practice and skills development" (Brady and Barth 15). These issues must be addressed for students as well and in an equitable fashion to ensure that even the poorest of students are given the same exciting learning opportunities and invaluable skills. For some students, school is

the only place where they can get the proper training and exposure to the computer and its technology.

Technology offers a wealth of opportunity to add excitement and enthusiasm to the social studies and to all areas of the curriculum. It is our obligation as educators, parents, and active members of society to ensure that educational goals are future-driven and reflect technology-oriented objectives which will better prepare children "to be productive and effective in both their personal and professional lives" (qtd. in Boldt, Gustafson, and Johnson 105). In addition, since computers make it easier for students to be "active, rather than passive learners" (Hope 151), this will help them to realize that they are ultimately responsible for their own education and achievement. If given the right tools, students can navigate their own course toward independence and success.

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GLOSSARY OF TERMS

computer-based reference tools: software and telecommunications networks which allow access to resources such as reference and graphics displays.

database: "Application program allowing the organization, storage, and search of information" (Grabe and Grabe 417).

delivery system: refers to the computer and its various applications.

drill-and-practice: "*drill* concerns factual memorization, and *practice* concerns the development of skill fluency" (Grabe and Grabe 93).

electronic bulletin boards: a telecommunications capability in which hundreds of messages can be stored in a file and read by any user accessing the file.

E-Mail account: an address assigned to a subscriber of an electronic mail server which allows the user to send and receive mail.

exploratory environment: learner controlled, multimedia programs that "provide manageable and responsive computer-based worlds for students to explore and manipulate" (Grabe and Grabe 98).

hypersystem: programs that contain database, spreadsheet, word processor, and graphic presentation capabilities which allow the user to create multimedia projects.

Internet: "A world-wide computer network that connects several thousands of businesses, schools, research foundations, individuals, and other networks. Anyone with access can log on, communicate via E-mail, and search for various types of information" (Arnston et al. 231).

instructional software: also known as computer-assisted instruction (CAI); "computer program(s) intended to provide instructional experiences directly to the students" (Grabe and Grabe 417).

multimedia: "Communication format integrating several media (text, audio, visual); most commonly implemented with a computer" (Grabe and Grabe 419).

productive software: "computer programs the enable students to organize, analyze, and report the data they collect" (Yeager and Morris 280).

simulation: an interactive program that "provide(s) controlled learning environments that replicate key elements of real-world environments" (Grabe and Grabe 82).

spreadsheet: "Application program resembling a ledger sheet, allowing ... data to be entered into cells and arranged as rows and columns. Calculations can be performed on ... [numerical] data by attaching formula to the cells" (Grabe and Grabe 421).

tutorial: "A [student-paced] learning activity in which the computer primarily presents new information to the student and provides opportunities for the student to become proficient with this information" (Grabe and Grabe 421) by providing suggestions and feedback.

videodisc imagery: visual images stored "on a [computer] disc in a format that is read by bouncing a laser beam off the disc's surface" (Grabe and Grabe 422).

Web site: "A location on the Internet that represents a particular company, organization, topic, etc. It normally contains links to more information within a site, as well as suggested links to related sites in the Internet" (Arnston et al. 234).

BIBLIOGRAPHY

Arnston, Berkemeyer, Halliwell, and Neuberger. Learning the Internet. New York: DDC Publishing, 1997.

Barr, Hugh. "Social Studies by Electronic Mail." The Social Studies 85, no.6 (Nov.-Dec. 1994): 281-284.

Boldt, David J., Leland V. Gustafson, and Jack E. Johnson. "The Internet: A Curriculum Warehouse for Social Studies Teachers." The Social Studies 86, no.3 (May-June 1995): 105-112.

Boyer, Barbara A., and Penelope Semrau. "A Constructivist Approach to Social Studies: Integrating Technology." Social Studies and the Young Learner 7, no.3 (Jan.-Feb. 1995): 14-16.

Brady, H. Robert. "An Overview of Computer Integration into Social Studies Instruction." Social Education 58, no.5 (Sep. 1994): 312-314.

Brady, H. Robert., and James L. Barth. "Social Studies Standards That Effectively Integrate Technology." Social Education 56, no.1 (Jan. 1992): 14-16.

Braun, Joseph A., Jr., ed. "Global Connections." Social Studies and the Young Learner 6, no.4 (Mar.-Apr. 1994): 27-29.

Braun, Joseph A., Jr., and Christine Kraft. "Using Technology to Learn from Travelmates' Adventures." Social Studies and the Young Learner 7, no.3 (Jan.-Feb. 1995): 8-10,13.

Braun, Joseph A., Jr., ed. and Terry Kuseske, ed. "A Teacher's Perspective on What's Ahead for Technology." Social Studies and the Young Learner 6, no.3 (Jan.-Feb. 1994): 26-28.

Carroll, Terry., Chery Knight, and Ed Hutchinson. "*Carmen Sandiego*: Crime Can Pay When It Comes To Learning." Social Education 59, no.3 (Mar. 1995): 165-169.

Chiodo, John J., and Mary L. Flaim. "The Link between Computer Simulations and Social Studies Learning: Debriefing." The Social Studies 84, no.3 (May-June 1993): 199-121.

Field, Sherry L., ed., and John D. Hoge, ed. "Using Media Resources to Implement the New NCSS Curriculum Standards." Social Studies and the Young Learner 8, no.1 (Sep.-Oct. 1995): 26-29.

Gooler, Dennis D., ed. "Perspectives: Technology as Content in Social Studies Curricula for Young Learners." Social Studies and the Young Learner 7, no.3 (Jan.-Feb. 1995): 27-30.

Grabe, Mark., and Cindy Grabe. Integrating Technology for Meaningful Learning. Boston: Houghton Mifflin Company, 1996.

Hope, Warren C. "It's Time to Transform Social Studies Teaching." The Social Studies 87, no.4 (Jul.-Aug. 1996): 149-151.

Klenow, Carol. "Electronic Social Studies." Instructor 102, no.3 (Oct 1992): 65-66.

McKinney-Browning, Mabel C., ed. "What's Ahead for Social Studies?" Social Studies and the Young Learner 6, no.3 (Nov.-Dec. 1995): 277-282.

Mitchell-Powell, Brenda. "More than Just a Pretty Interface: Access, Content, and Relevance in Computer Technology." Social Studies and the Young Learner 7, no.3 (Jan.-Feb. 1995): 11-13.

Nellis, M. Duane. "Technology in Geographic Education: Reflections and Future Directions." Journal of Geography 93, no.1 (Jan.-Feb. 1994): 36-39.

Ross, Patricia. "Relevant Telecomputing Activities." Computing Teacher 22, no.5 (Feb. 1995): 28-30.

Wade, Rahima, ed., Tom Dunthorn, ed., Ellen Nelson, ed., and Lynn Woods, ed. "Redefining Instructional Materials: Social Science 2000 Connections, Challenges, Choices." Social Studies and the Young Learner 7, no.3 (Jan.-Feb. 1995): 17-18.

Wilson, Elizabeth K., and George E. Marsh, II. "Social Studies and the Internet Revolution." Social Education 59, no.4 (Apr.-May 1995): 198-202.

Wilson, Jeri, ed. "Potential for Diversity Projects Abound on the Internet Yet Go Unrealized in the Commercial World." Social Studies and the Young Learner 7, no.4 (Mar.-Apr. 1995): 28-30.

Wilson, Jeri, ed. "Social Studies Online Resources." Social Studies and the Young Learner 7, no.3 (Jan.-Feb. 1995): 24-26.

Yeager, Elizabeth Anne., and James W. Morris, III. "History and Computers: The Views from Selected Social Studies Journals." The Social Studies 86, no.6 (Nov.-Dec. 1995): 277-282.

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